

2016 Revisions of the Kalispel Tribe's Water Quality Standards

Summary of Basis

January 2016

These revisions of the Kalispel Tribe's water quality standards were completed to primarily address changes in EPA-recommended criteria for the protection of aquatic life and human health. Such criteria have not been revised since the Kalispel water quality standards were first adopted in 2003. A summarized explanation of the basis for the revisions to the Kalispel water quality standards is presented below.

1. Introductory Page 1 with notes about original EPA approval process was deleted.
2. Section 1 – Background
 - a. Deleted "a" from the first sentence.
 - b. Added a brief history of EPA approval for Kalispel Tribe treatment in the same manner as a State for Sections 301(c) and 401 of the Clean Water Act and the first Kalispel water quality standards.
3. Section 3(b) - Analytical Methods
 - a. Inserted language to include consideration for lowest levels of measure for analytical methods chosen.
 - b. Added critical flow definitions consistent with new ammonia aquatic life criteria guidance.
 - c. Added footnote to account for developing seasonal critical flows consistent with Washington Department of Ecology guidance when using critical seasonal flows for mixing zones dilution calculations.
4. Section 4 – Definitions
 - a. Minor clarifying edits made to some definitions.
 - b. Added a new definition for "Fishing".
5. Section 5 – Mixing Zones
 - a. Replaced 7Q10 in the text with "critical" low flow to account for the new critical flow used in calculating the revised ammonia criteria.
6. Section 10 – Toxic Substances
 - a. Paragraph 1): Deleted the last sentence since "waters and territories covered" and "applicability" of water quality standards which is previously established in Sections 2 and 3.
 - b. Paragraph 3):
 - i. Added term "human health" in the description of protection from Toxics to be consistent with the purpose of Human Health Criteria (HHC) in the standards.

- ii. Added language allowing the use of published version of EPA Recommended Water Quality Criteria, or other relevant information for criteria not specifically listed in Kalispel water quality standards.
- c. Paragraph 4):
 - i. Revised the fish consumption rate to 389 g/day consistent with Kalispel Tribal Council Resolution. The new fish consumption rate is based on regional tribal fish consumption rate surveys completed by the Columbia River Intertribal Fish Commission and is further supported by a recent survey conducted by the Confederated Tribes of the Colville Reservation.
 - ii. Deleted the last two sentences since they are no longer pertinent to new toxic criteria in Table 2.
- d. Table 2 – Toxic Substances
 - i. Revised Table 2 with new criteria and applicable footnotes and endnotes based on the EPA-recommended freshwater aquatic life and human health criteria (HHC). Unless otherwise noted, the inputs used to calculate the HHC include:
 1. Fish Consumption Rate - 389 g/day based on regional tribal fish consumption surveys.
 2. Drinking Water Intake – 2.4 L/day
 3. Body weight - 70 kg based on NHANES III database (1988-1994). The Tribe does not have information to show that EPA’s increased body weight assumption of 80 kg applies to tribal members, especially those individuals who are currently infants and for which the criteria are developed to protect over their life span. Therefore, the Tribe has chosen to use the conservative assumption for body weight until regional-specific information is available.
 4. Chemical-specific inputs consistent with those provided in the 2015 final recommended HHC.
 5. Bioaccumulation Factor (BAF) – The maximum BAF or BCF from all trophic levels was used from the EPA chemical-specific inputs table.
 6. Safe Drinking Water Act maximum contaminant level (MCL) was used for the HHC (water and organisms) where it was more protective than the calculated ambient HHC, or the pollutant was not included in the EPA list of recommended HHC.
 - e. Paragraphs 7-8 and Tables 3-5 of previous water quality standards were deleted, and updated versions are incorporated as footnotes and endnotes to the revised Table 2
 - f. A seasonal (April-October) nutrient criterion for total phosphorus (10 µg/L) was added in Table 3 and was based on the EPA-recommended phosphorus criterion for Ecoregion II Rivers and Streams. This criterion is also supported by the Lake Pend Oreille phosphorus TMDL establishing a lake-wide mean euphotic zone target concentration of 7.3 µg/L and a mean near-shore target concentration of 9 µg/L.

7. Section 11 – Beneficial Water Uses to be protected in Waters of the Reservation

- a. Table 7 renumbered to Table 4 and text referring to the Table 7 revised to refer to renumbered Table 4.
 - b. Table 4 - Designated Beneficial Uses of Waters of the Reservation
 - i. Cutthroat Trout spawning added to Brown Trout spawning protection along with the inclusion of “incubation and rearing” to be more explicit for designated uses that were previously assumed to be a part of the designated use term “spawning”.
 - ii. “Fishing” was added as an explicit use with the previously designated uses of “Wildlife Habitat” and “Hunting”.
8. Section 12 – General Water Use and Criteria
- a. Sections 12(a), (b), and (e)
 - i. The allowable human-caused temperature increase was reduced from 0.3°C to 0.25°C when the numeric criterion is naturally exceeded.
 - ii. Added narrative language to the numeric water temperature criteria requiring preservation of the natural thermal regime and thermal refugia to the maximum extent possible. Both changes are consistent with EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards.
 - b. Section 12(a) – Cutthroat and Brown Trout Spawning, Incubation, and Rearing
 - i. Added “Incubation and Rearing” to be more explicit for designated uses in trout streams.
 - ii. Added Cutthroat Trout spawning, incubation, and rearing to explicitly protect those uses previously only provided for Brown Trout spawning.
 - iii. Incorporated two separate seasonal criteria;
 - 1. The season and temperature criterion previously defined for Brown Trout fall spawning was extended through May 31st to protect Cutthroat spring spawning and incubation while leaving the previously established numeric criterion unchanged.
 - 2. A trout summer-season temperature criterion was added to protect rearing consistent with EPA Region 10 recommended criterion for core juvenile trout rearing.
 - c. Section 12(f) – Ceremonial and Cultural Use
 - i. Added “consumption” as a designated use in the general description to be consistent with the already existing narrative criteria described in 12(f)(3) protecting waters from toxic materials for use as possible domestic or municipal water supplies.
 - ii. Added to the designated uses in the general description to include explicitly include “consumption”, “sweat bathing”, and “any other ceremonial and cultural uses” so as not to limit protected uses for those previously described as only swimming and wading.